

ABSTRACT OF THE DISCLOSURE

Methods and apparatuses for variable length decoding using multiple look-up tables simultaneously. In one aspect of the invention, a method for execution by a microprocessor in response to receiving a single instruction includes: receiving a string of bits; generating a plurality of indices using a plurality of segments of bits in the string of bits; looking up simultaneously a plurality of entries from a plurality of look-up tables using the plurality of indices; and combining the plurality of entries into a first result. The above operations are performed in response to the microprocessor receiving the single instruction.